constituted and are functioning. These Committee have held number of meetings during 1998-1999. However, during 1999-2000, required number of meetings could not be convened due to occurrence of super cyclone in October, 1999 and conduct of Lok Sabha as well as State Assembly elections during August/September, 1999 and February, 2000.

(c) The State Government of Orissa has informed that the scheme is reviewed on a regular basis at the District and State levels. The Vigilance Committees at the Block/District/State levels have been activised. The dates of holding of Vigilance Committee meetings at the District/Block levels have been specified. A Vigilance Squad in every district under the Chairmanship of the Collector has been constituted. The squad consisting of an Assistant Engineer in the district, an Administrative Officer and an Auditor takes up cases received by the Collector either from the public or as required by the Vigilance and monitoring Committee. The State Government has issued instructions to all Collectors/Project Directors, District Rural Development Agencies and Block Development Officers to strictly adhere to the guidelines/instructions issued for implementation of the EAS.

#### Wastelands

†2599. SHRI KRIPAL PARMAR: Will the Minister of RURAL DEVELOPMENT be pleased to state:

- (a) the State-wise wasteland estimated at the inception of Wasteland Development Board;
- (b) whether Government have been successful in developing suitable technologies to improve the fertility of wasteland through the affordable means; and
  - (c) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF RURAL DEVELOPMENT (SHRI A. RAJA): (a) The total extent of

tOriginal notice of the question was received in Hindi.

wastelands at the inception of National Wastelands Development Board (NWDB), was 129.57 million hectares as estimated in 1984 by the Society for Promotion of Wastelands Development (SPWD), New Delhi. However, as per the "Wasteland Atlas of India, 2000", brought out by Department of Land Resources in collaboration with National Remote Sensing Agency, Hyderabad, using Remote Sensing Technologies, the total extent of wastelands in the country is 63.85 m.ha. The State-wise details of wastelands as per SPWD's estimates, 1984 and Wastelands Atlas, 2000, is given in the Statement-I (See below).

(b) and (c) Research Institutions/Organizations under Central and State Governments and State Agricultural Universities have developed technologies for improving the soil health and productivity of various types of degraded lands/wastelands. The statement showing technologies for major categories of wastelands is given at Statement-II.

State-wise Wastelands in the country

(Area in lakh hactares)

S.No.	State	SPWD's Estimate, 1984	Wasteland Atlas, 2000
1	2	3	4
1.	Andhra Pradesh	114.16	51.75
2.	Arunachal Pradesh		18.33
3.	Assam	17.30	20.02
4.	Bihar	54.58	21.00
5.	Goa		0.61
6.	Gujarat	78.36	43.02
7.	Haryana	24.78	3.73
8.	Himachal Pradesh	19.58	31.66
9.	Jammu and Kashmir	15.65	65.44
10.	Karnataka	91.65	20.84
11.	Kerala	12.79	1.45
12.	Madhya Pradesh	201.42	69.71
13.	Maharashtra	144.01	53.49
14.	Manipur	14.38	12.95

1	2	3	4
15.	Meghalaya	19.18	9.90
16.	Mizoram		4.07
17.	Nagaland	13.86	8.40
18.	Orissa	63.84	21.34
19.	Punjab	12.30	2.23
20.	Rajasthan	199.34	105.64
21.	Sikkim	2.81	3.57
22.	Tripura	9.73	1.28
23.	Tamil Nadu	44.01	23.01
24.	Uttar Pradesh	80.61	38.78
25.	West Bengal	25,36	5.72
<u>26.</u>	Union Territories	36.04	0.57
	TOTAL	1295.74	638.51

### Statement-II

## Details of Technologies for Major Categories of Wastelands

Keeping in view the geo-location and type of wastelands, Government of India through its various research organisation viz. Indian Council of Agricultural Research (ICAR), Council of Scientific and Industrial Research (CSIR), State Agricultural Universities (SAUs) and other organisations under State/Central Government have developed suitable technologies to improve the soil health and land productivity of various types of degraded lands/wastelands. Technology for major categories wastelands are as below:

# 1. Sandy Area:

Stabilization of problem area by wind breaks and shelter belts, stubble mulching, Strip cropping, Agro-Forestry Systems etc.

### 2. Land with or without Scrub/Sheet Erosion Area:

Diversion bunds, contout/graded terracing and trenching, check ams, conservation structures of erosion control, water harvesting and storage including biological measures, agro-forestry systems etc.

# 3. Shifting Cultivation:

Agricultural crops on the lower slopes, horticultural plantations on mid-slopes and grasses and forest plantations on the top, Contour/

graded bunds, bench terraces, half moon terraces, grassed water ways, Silt detention tanks/storage structures etc.

#### 4. Salt Affected Soils:

- (a) Alkali Soil:— Bunding and levelling, flooding irrigation using good quality of water, surface drainage, gypsum and Pyrite application followed by leaching, green manuring and crop production.
- (b) Saline Soils:— Land levelling and grading, surface drainage, green manuring, crop management and augar hole technique for plantation of trees.
- (c) Acid Soils:— Addition of lime, green manuring and crop management.

### 5. Waterlogged Area:

Surface drainage, Sub-surface drainage system and bio-drainage and agro management practices including raising of suitable Silvi-Horti-Grass Species.

### 6. Gullied/Ravinous Area:

Mechanical measures include land levelling/terracing, contour/ graded bunding, gully head control structures, loose bolder structures, gabbion toe wall, spurs, drop structures, etc. The biological measures include mulching, contour wattling, Silvi-Horti-Plantation etc.

## 7. Mine Spoiled Area:

Plantations, usage of biofertiliser, conversion of back fill area through sawdust, fly ash, gypsum, FYM and green manure, utilisation of solid waste compost in ash pond, utilisation of industrial waste and by product and hi-tech sewage farm etc.